REMARKS/ARGUMENTS

Pursuant to 37 C.F.R. § 1.116, reconsideration of the present application in view of the foregoing amendments and the following remarks is respectfully requested.

In the Claims

Claims 1 - 6 and 8 - 19 are presented for the Examiner's consideration.

Claims 1, 15 and 19 have been amended to clarify that the superabsorbent is contained and held within the nonwoven material of the present invention. This amendment finds support within the specification at page 9, lines 20 – 21 and the paragraph beginning at page 11, line 24.

The Applicant requests that the amendments be entered as they place claims 1 – 6 and 8 – 19 in proper form for allowance, or minimally, the amendments place the claims in better condition for appeal as they reduce the issues for appeal by ameliorating the Examiner's rejection for indefiniteness and by further distancing the present invention from the cited references.

Summary of the Invention

This invention relates to a single-layer nonwoven material for personal care products capable of containing superabsorbent having a mixture of polymeric fibers, binder and superabsorbent. The binder is present in an amount between 1 and 6 weight percent based on the weight of the web before superabsorbent is added. The superabsorbent is added to the fiber and binder in an amount between 1 to 80 weight percent of the web. The superabsorbent is preferably in the form of particles (SAP). The SAP is placed and held within micro-pockets formed by various means like creping or the mechanical creation of depressions in the surface of the nonwoven using a pattern roll. The volume of these micro-pockets may be between 0.33 and 10 cubic millimeters. With this construction the web remains permeable to liquids before and after wetting. The web should have a permeability above 1500 darcys.

Regarding Examiner's rejections

1. Rejection for indefiniteness

By way of the Office Action mailed April 2, 2004, Examiner Pierce rejected claims 1 – 6 and 8 - 19 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, the Examiner first contends that the reference to the nonwoven being "capable of containing superabsorbent" in claims 1, 15, and 19 renders the claims indefinite. Applicant has addressed this rejection by deleting the phrase from each of claims 1, 15 and 19.

The Examiner also contends that claims 1, 15 and 19 are indefinite with regard to the phrase "binder is present in an amount between 1 and 6 weight percent based on a web weight before the addition of superabsorbent." Additionally, the Examiner contends that claims 1 and 19 are also indefinite with regard to the phrase "superabsorbent is added in an amount between 1 and 80 percent based on the weight of the web."

Nonwoven fabrics, or nonwoven webs, are well known to those skilled in the art and are understood to contain fibers and other additives and processing aids. In the present invention, an effective amount of binder is used within the web to help provide mechanical integrity to the web. As discussed in the specification beginning at page 12, line 22:

> The fabric used in the practice of this invention may have natural fibers, though webs of synthetic polymer fibers are preferred. An effective amount of binder, typically from 1 to 6 weight percent (based on the web weight before addition of superabsorbent), may be present to help provide mechanical integrity by binding the fibers and particles together. The binder may more particularly be between 1 and 5 percent and still more particularly between 1 and 4 percent. As much as 80 percent by weight of the web may be added as superabsorbent. A more particular range for the superabsorbent is between 25 and 75 weight percent and still more particularly between 40 and 60 weight percent.

Binder, if present, gives integrity to the web and logically will become part of the web prior to the addition of the superabsorbent. The paragraph above clearly states that the weight percentage of binder present is based on the web weight prior to the addition of the superabsorbent particles.

The superabsorbent particles are added to this web after micro-pockets are formed by creping (page 9, lines18 – 23) or creating depressions in the web (page 11, lines 3 – 18). As clearly stated above, the weight percentage of the superabsorbent is a weight percentage of superabsorbent ***added to*** the web. As discussed, the web would contain the binder at this stage of the manufacturing process. Logically, the weight percentage of superabsorbent is based on the "weight of the web" which would include the weight of fiber and binder.

Therefore, the Applicant believes that claims 1, 15 and 19 are not indefinite as one skilled in the art would understand the nature of the weight percentages as claimed. The Applicant respectfully requests that the Examiner withdraw the indefiniteness rejection of claims 1 – 6 and 8 – 13.

2. Rejection for obviousness by Tanzer et al. in view of Onuschak et al.

By way of the Office Action mailed April 2, 2004, Examiner Pierce rejected claims 1 - 6, 8 - 13, 15, 17 and 18 under 35 U.S.C. §103(a) as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over Tanzer et al. (U.S. Patent No. 5,562,645) in view of Onuschak et al. (U.S. Patent No. 6,139,912). This rejection is respectfully **traversed** to the extent that it may apply to the present claims.

In Tanzer, the inventive fibrous web layer 40 that contains not more than 5% binder (column 16, lines 28-37) is specified as being "substantially free of superabsorbent polymer material" (column 16, lines 39 – 42). The fibrous web layer 40 is a distinct layer from the retention portion 48 which may contain superabsorbent material (column 18, lines 16 – 30). It is this retention portion 48 which can contain pockets of superabsorbent (column 18, lines 43 – 46) and not the fibrous web layer 40 (which contains the binder). The fibrous web layer 40 may be positioned adjacent to the retention portion 48 (column 18, lines 16 – 21), but it remains a distinctly separate layer, substantially free of superabsorbent material.

Discrete pockets of superabsorbent are also discussed in Tanzer in reference to FIG. 5 and FIG. 6 (column 20, lines 33 – 55). The pocket regions of this Tanzer embodiment are spaced apart "***on*** a major facing ***surface*** of at least one liquid permeable web, and in particular arrangements, the pocket regions can be formed and ***sandwiched between*** first and second liquid permeable webs 84 and 86 respectively" (emphasis added). Tanzer continues to say that it is possible that "one or both of these liquid permeable webs may be a fibrous web layer 40." Even in this configuration, the fibrous web layer 40, containing the binder, is substantially free of superabsorbent and only keeps the superabsorbent in discrete pockets when used in combination with another layer; the superabsorbent is kept on the surface of the fibrous web layer.

While the claims of Tanzer are not limited in this regard, Tanzer does not teach a nonwoven layer having fibers, binder **and** superabsorbent. While Tanzer discusses a fibrous web of fibers and binder, that fibrous web is "substantially free of superabsorbent." When incorporated into the finished product of Tanzer, the fibrous web with binder may come into contact with superabsorbent, but the superabsorbent is kept on the surface of the fibrous web and does not become an integral part of the fibrous web, nor does the fibrous web hold on to the superabsorbent by itself. The only way that superabsorbent material is kept in contact with the fibrous web is with the use of an additional layer of material. Therefore, Tanzer does not teach all of the limitations of the present invention.

The present invention is distinguishable in that it defines micro-pockets to be small pockets, having a volume of only a few cubic millimeters or less, formed in the single-layer nonwoven web

(see page 6, lines 6 – 8). Such micro-pockets are just large enough to allow entry of and storage for individual particles of superabsorbent. Unlike Tanzer, the present invention does not use a second layer to form pockets to contain the superabsorbent. Instead, the invention forms pockets within its single layer made up of fiber and binder (see claims 1 and 15). Thus, the present invention of micro-pockets formed by creping or depressions in the single-layer is nonobvious, in the sense of 35 U.S.C. § 103(a), in view of the multi-layer formation of the pockets in Tanzer.

More particularly, the Examiner contends that in view of Onuschak et al. the size of the pockets is a results effective variable and it would have been obvious to one of ordinary skill in the art to make the pockets of Tanzer between 0.5 and 5 cubic millimeters, since discovering an optimum value of a result effective variable involves only routine skill in the art under the ruling of *In re Boesch*. Likewise, the Examiner contends that the permeability is also a result effective variable and it would have been obvious to one skilled in the art to optimize the permeability of the Tanzer material to a level of at least 2000 darcys.

As the Examiner has acknowledged, Tanzer does not disclose or teach either the volume of its pockets or the permeability of the material. As discussed above, the present invention has micro-pockets of a very small size and has a single-layer structure rather than the multiple layer structure of Tanzer. The structure of the present invention is nonobvious in view of Tanzer. Therefore, neither the pocket volume nor the permeability would be result effective variables and it would not be obvious, in the sense of 35 U.S.C. § 103(a), to merely optimize the size of the pockets or the level of permeability in Tanzer.

Applicant respectfully submits that the rejection of claims 1 - 6, 8 - 13, 15, 17 and 18 under 35 U.S.C. §103(a) by Tanzer in view of Onuschak is improper and should be withdrawn.

3. Rejection for obviousness by Tanzer et al. in view of Onuschak et al. and further in view of Shohji et al.

By way of the Office Action mailed April 2, 2004, Examiner Pierce rejected claims 14 and 16 under 35 U.S.C. § 103(a) as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over Tanzer et al. (U.S. Patent No. 5,562,645) in view of Onuschak et al. (U.S. Patent No. 6,139,912), and further in view of Shohji et al. (U.S. Patent No. 5,549,964). This rejection is respectfully **traversed** to the extent that it may apply to the present claims.

Claims 14 and 16 depend directly from claims 1 and 15, respectively, which Applicant has discussed above. Claims 14 and 16 are similarly distinguishable from Tanzer in view of Onuschak

and further in view of Shohji. For the same reasons as discussed above, Tanzer is not an appropriate reference for an obviousness rejection.

Furthermore, as the Examiner has pointed out, Tanzer does not disclose electret treatment of the web. Shohji mentions that electret treatment would improve the filtering properties of the nonwoven invention of Shohji. The Examiner suggests that one skilled in the art would be motivated to provide the electret treatment of Shohji to the material of Tanzer to improve the filtering of waste fluid components that enter the product of Tanzer.

However, the present invention seeks to use electret treatment, as an alternative to using an adhesive, to further encourage superabsorbent to remain within the inventive fabric (see page 12, lines 1 – 4). Art that relates to the filtering of waste fluid components would not be relevant to one skilled in the art trying to manufacture a nonwoven web of the present invention. One skilled in the art, seeking to keep superabsorbent in place, would not be motivated to look to art regarding improvement of filtration properties or the filtering of waste fluid components that enter the product. Therefore, there is no motivation to combine the references.

Thus, Applicant respectfully asks that the obviousness rejection of claims 14 and 16 under 35 U.S.C. § 103(a) be withdrawn.

For the reasons stated above, it is respectfully submitted that all of the present claims are in form for allowance.

Please charge any prosecutional fees which are due to Kimberly-Clark Worldwide, Inc. deposit account number 11-0875. The undersigned may be reached at: (770) 597-8640.

Respectfully submitted,

Eugenio Go Varona

By: _____

Nathan P. Hendon
Registration No.: 55,848
Attorney for Applicant

CERTIFICATE OF FACSIMILE TRANSMISSION

I, Nathan Hendon, hereby certify that on June 1, 2004, this document is being sent by facsimile to the United States Patent and Trademark Office, central facsimile number for all patent application related correspondence, at 703-872-9306.

By: _____

Nathan Hendon